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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,535	12/05/2003	Ornan Gerstel	CISCP827	8291
54406	7590	12/07/2005	EXAMINER	
AKA CHAN LLP / CISCO 900 LAFAYETTE STREET SUITE 710 SANTA CLARA, CA 95050			SONG, SARAH U	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/728,535	<b>Applicant(s)</b> GERSTEL ET AL.	
	<b>Examiner</b> Sarah Song	<b>Art Unit</b> 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicant's communication filed on September 22, 2005 has been carefully considered and placed of record in the file. Claims 7, 8, 12, 13, 17 and 18 have been amended. Claims 1-18 are pending.

#### ***Drawings***

2. The drawings were received on September 22, 2005. The drawings are approved.

#### ***Claim Objections***

3. Claim 13 is objected to because of the following informalities: in line 9, Examiner suggests changing "ore" to —or—. Appropriate correction is required

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

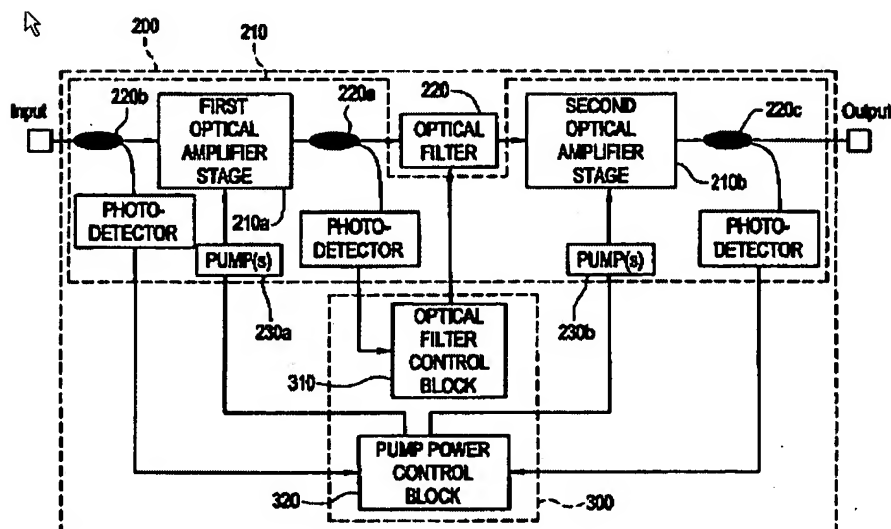
5. **Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Kelkar et al.**

**(U.S. Patent 6,646,789 newly cited).**

6. Regarding claim 12, Kelkar et al. discloses, for an optical network having an optical fiber carrying signals of a plurality of wavelengths, each wavelength defining a communication channel for said optical network, a combination comprising:

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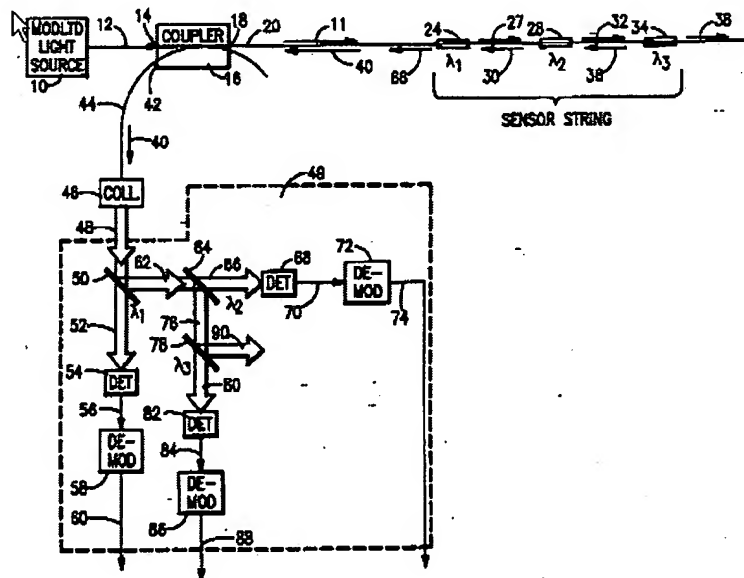
- a first amplifier stage 210a having an input terminal for connection to said optical fiber and an output terminal;
- a second optical amplifier stage 210b having an input terminal and an output terminal connected to said optical fiber;
- a wavelength blocker unit 220 connected to said output terminal of said first amplifier stage and said input terminal of said second amplifier stage, said wavelength blocker unit preventing signals of one or more predetermined wavelengths from passing from said first optical amplifier input terminal to said second optical amplifier output terminal; and
- a pump 230a connected to said first and second optical amplifier stages;
- whereby signals not of said one or more predetermined wavelengths are amplified in said optical fiber and signals of said one ore more predetermined wavelengths are blocked. Figure 17a for example.



7. Claims 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunphy et al. (U.S. Patent 5,426,297 newly cited).

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8. Regarding claims 13 and 16, Dunphy et al. discloses a one-directional optical fiber carrying signals of a plurality of wavelengths, each wavelength defining a communication channel for an optical network, a combination comprising: a coupler 50 connected to said optical fiber 44, said coupler splitting signals of said plurality of wavelengths from said optical fiber; and a plurality of wavelength filters 64 and 78 connected in a serial cascade arranged so that for any pair of wavelength filters, a wavelength filter 64 first receiving signals from said coupler diverts signals at one or more predetermined wavelengths to a first receiver 68 and transmits signals at wavelengths other than said one or more predetermined wavelengths to a second wavelength receiver 78, said second wavelength receiver diverting said transmitted signals at at least one or more wavelengths to a second receiver 82. The wavelength filters comprise bandpass filters (column 4, line 29).

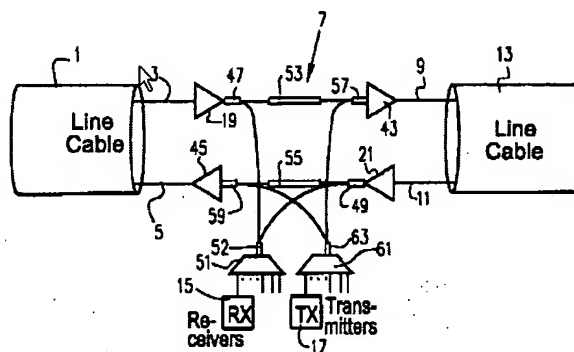


9. **Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Sundelin (U.S. Patent 6,091,869 previously relied upon).**

10. Regarding claim 17, Sundelin discloses an optical network comprising: a optical fiber carrying light signals of a plurality of wavelengths, each wavelength defining a communication channel for said optical network; a plurality of means 57 and 47 connected to and distributed

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along said optical fiber for inserting light signals of different wavelength into said optical fiber and for splitting said light signals of said plurality of wavelengths from said optical fiber; and a plurality of means 53 (corresponding to the plurality of nodes) connected to and distributed along said optical fiber for filtering out optical signals at selected wavelengths on said optical fiber and distributed among groups of inserting 57 and splitting 47 means and numbering less than said plurality of inserting and splitting means (i.e. numbering half the inserting and splitting means).



### *Claim Rejections - 35 USC § 103*

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. **Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunphy et al.**

13. Regarding claims 14 and 15, Dunphy et al. does not expressly disclose low-pass filters, high-pass filters. The claimed filters are well known in the art and would have been obvious to

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one of ordinary skill in the art for the filters of Dunphy et al. since applicant has not disclosed that the particular type of filter solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any type of wavelength filter.

14. **Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sundelin.**

15. Regarding claims 18, Sundelin does not expressly disclose that the number of channels passing through, channels added, channels dropped and local channels combine to total less than or equal to the total fiber capacity. However, it is commonly known to not exceed a system capacity in order to prevent failures. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the total channels to be less than or equal the total capacity of the fiber in order to prevent communication failures.

***Allowable Subject Matter***

16. Claims 1-11 are allowed.

17. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose an optical network wherein a plurality of wavelength blocker units connected to said optical fiber, each wavelength blocker unit is distributed among groups of said pluralities of add and drop couplers so that each segment of said optical fiber between pairs of neighboring wavelength blocker units has at least three add and drop couplers.

The prior art of record discloses providing a wavelength blocker unit between a drop coupler and an add coupler of a node. Considering a network comprising a plurality of nodes, the resulting configuration would be one add coupler and one drop coupler (two couplers) between neighboring wavelength blocker units. The prior art of record does not reasonably suggest the modification to provide at least three add and drop couplers between neighboring wavelength

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blocker units. Therefore, claim 1 is allowable. Claims 2-11 are allowable as depending on claim 1.

### ***Response to Arguments***

18. Applicant's arguments with respect to claims 12-16 have been considered but are moot in view of the new ground(s) of rejection.

19. Applicant's arguments with respect to claims 17 and 18 have been fully considered but they are not persuasive. Applicant states that each "means...for inserting...and for splitting..." was counted as one and is therefor not anticipated by Sundelin. Examiner notes that the wording of the claim does not distinctly set forth a means for inserting and splitting wherein each means performs both functions of splitting and inserting and thus counting as one. The claim merely recites "a plurality of means...for inserting...and for splitting..." Each of the splitting means and each of the inserting means of Sundelin meets the claimed limitation for the "plurality of means...for inserting...and for splitting". Therefore, the total number in the "plurality of means...for inserting...and for splitting" is greater than the number of "means for...filtering" and thus meets the claimed limitation.

### ***Conclusion***

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after




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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Song whose telephone number is 571-272-2359. The examiner can normally be reached on M-Th 7:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sarah Song  
Patent Examiner  
Group Art Unit 2874